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EXAMINER

TRAN, PHUC H

ART UNIT PAPER NUMBER

2668

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Please find below and/or attached an Office communication concerning this application or proceeding.



**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara (U.S. Patent No. 6067298) in view of Yin et al. (U.S. Patent No. 6490251 B2).

- With respect to claims 1, 6, 10, 12, 17, 24-25, & 32-33, Shinohara teaches an apparatus for switching packets from a network (e.g. Fig. 1), the apparatus comprising:

an ingress receiver that receives packets from the network (block 25 in Fig. 1), the packets being destined for an associated output queue (each buffers 24 corresponds to buffers 31 as show in Fig. 1);

a switch fabric coupled to receive the inbound packets from the ingress receiver (block 103 and 109 in Fig. 8);

and an output traffic manager coupled to receive packets from the switch fabric (block 103 and 32 in Fig. 8), wherein the output traffic manager includes at least one queue (queue 31 in Fig. 1), the output traffic manager selectively stores outbound packets into a selected queue (col. 7, lines 24-27) and selectively drops outbound packets when the selected queue is at a certain fullness level (col. 3, lines 37-44). Shinohara teaches the output traffic manager communicates to the ingress receiver to cease transmitting cells to the output buffer (col. 8, lines 10-23, col. 11, lines 59-67 to col. 12, lines 1-2). Shinohara fails to teach the ingress receiver to drop inbound

packets destined for that queue when it receives a communication with output manager. Yin from the same or similar fields of endeavor teaches the dropping packets when receives a feedback information (col. 6, lines 15-21). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the dropping method of Yin into Shinohara at the input buffer of Shinohara to reduce the traffic load and during the congested period.

- With respect to claims 2, 11, & 16, Shinohara also teaches wherein the output traffic manager identifies at least the designation of imminently droppable or dropped outbound packets, and wherein the ingress receiver drops inbound packets based on an identified designation (e.g. output data controller monitors buffers and communicates back to input data controller, col. 4, lines 5-17).

- With respect to claims 3-5, 18-20, 26-28, and 34-36, Shinohara discloses wherein the designation comprises a port address to the network, or a class of service or virtual private network (e.g. the information of cells as Fig. 2).

- With respect to claims 7, 22, 30, & 38, Shinohara teaches wherein the ingress receiver discontinues inbound packet drop after a predetermined time (it is inherently to know that the ingress which has to drop a packet in time limit or predetermined time so the communication system returning to normal service).

- With respect to claims 8, 13, 21, 29, & 37, Shinohara discloses wherein the output traffic manager uses the switch fabric to communicate to the ingress receiver to drop inbound packets (block 102 in Fig. 1).

- With respect to claims 9, & 14, Shinohara also discloses wherein the output traffic manager uses a dedicated communications bus to communicate to the ingress receiver to drop inbound packets (line 70 in Fig. 1).

- With respect to claims 15, 23, & 31, Shinohara teaches a method of reducing packet traffic through a switching fabric (e.g. the method controlling the buffering as Fig. 1), the method comprising:

receiving packets from a network (block 20 in Fig. 1);

transmitting each packet to the switching fabric (e.g. cells go through block 102 in Fig. 1);

selectively queuing packets from the switching fabric (queues 103 in Fig. 1);

detecting imminent or active dropping of packets due to a queue being full (block 115);

signaling to drop inbound packets destined for the queue (line 60 in Fig. 1);

and dropping inbound packets destined for the queue (col. 4, lines 5-17).

Shinohara fails to teach the output traffic manager communicates to the ingress receiver to drop inbound packets destined for that queue. Yin from the same or similar fields of endeavor teaches the dropping packets when receives a feedback information (col. 6, lines 15-21).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the dropping method of Yin into Shinohara at the input buffer of Shinohara to reduce the traffic load and during the congested period.

***Response to Arguments***

3. Applicant's arguments filed 10/20/2005 have been fully considered but they are not persuasive.

In response to Applicant's argument, examiner respectfully disagrees. Shinohara teaches the limitations of the claim invention, but only fails to teach the dropping packets when receives a feedback information. Yin teaches the feature of dropping packets when it receives resource management information (Fig. 4, col. 6, lines 15-21). In page 13, Applicant's argument that "Neither Shinohara or Yin either alone or in combination, teaches or suggests that it would be desirable to drop packets at an input receiver in response to a communications from an output traffic manager". Examiner respectfully disagrees. Backpressure signal, ipso facto, means communication from 110 in Fig. 8.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172. The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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January 5, 2006



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